



## **RAW SEQUENCE LISTING** **ERROR REPORT**

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/900,063A  
Source: 1600  
Date Processed by STIC: 6/12/2003

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE **CHECKER VERSION 4.0 PROGRAM**, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

**<http://www.uspto.gov/web/offices/pac/checker>**

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<**<http://www.uspto.gov/efc/efs/downloads/documents.htm>**> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry directly to:  
U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7<sup>th</sup> Floor, Examiner Name,  
Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202  
Or  
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two,  
2011 South Clark Place, Arlington, VA 22202
4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office,  
Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 04/24/2003

RECEIVED  
JUN 19 2003  
TECH CENTER 1600/2100



1600

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/900,063A

DATE: 06/12/2003

TIME: 08:07:21

Input Set : A:\EP.txt

Output Set: N:\CRF4\06122003\I900063A.raw

5 <110> APPLICANT: Rothschild, Max F.  
7 Vincent, Amy L.  
9 Tuggle, Christopher K.  
13 <120> TITLE OF INVENTION: PROLACTIN RECEPTOR GENE AS A GENETIC MARKER FOR INCREASED  
LITTER SIZE IN  
14 ANIMALS  
18 <130> FILE REFERENCE: P02285UD5  
22 <140> CURRENT APPLICATION NUMBER: US 09/900,063A  
24 <141> CURRENT FILING DATE: 2001-07-06  
28 <150> PRIOR APPLICATION NUMBER: US 08/812,208  
30 <151> PRIOR FILING DATE: 1997-03-06  
34 <150> PRIOR APPLICATION NUMBER: US 08/742,805  
36 <151> PRIOR FILING DATE: 1996-11-01  
40 <150> PRIOR APPLICATION NUMBER: US 60/022,180  
42 <151> PRIOR FILING DATE: 1996-07-19  
46 <160> NUMBER OF SEQ ID NOS: 18  
50 <170> SOFTWARE: PatentIn version 3.1  
54 <210> SEQ ID NO: 1  
56 <211> LENGTH: 20  
58 <212> TYPE: DNA  
60 <213> ORGANISM: Porcine  
64 <400> SEQUENCE: 1  
65 cccaaaacag caggagaacg 20  
68 <210> SEQ ID NO: 2  
70 <211> LENGTH: 20  
72 <212> TYPE: DNA  
74 <213> ORGANISM: Porcine  
78 <400> SEQUENCE: 2  
79 ggcaagtggg tgaaaatgga 20  
82 <210> SEQ ID NO: 3  
84 <211> LENGTH: 492  
86 <212> TYPE: DNA  
88 <213> ORGANISM: Porcine  
92 <220> FEATURE:  
94 <221> NAME/KEY: allele  
96 <222> LOCATION: (240)..(240)  
98 <223> OTHER INFORMATION: G/A polymorphic site  
102 <400> SEQUENCE: 3  
103 aagtcaacaa agatggagca ctggcggtgc tcccaaaaca gcaggagaaac ggcgaccggc 60  
105 cggagaaggc tggcgcccct gaaaccagca aggaatacgc ccaggtgtcc cgggtgatgg 120  
107 ataaccacat cctggtgtta gtgcaggatc cgcgagctcg aaacgtggct ccgtttgaag 180  
109 aaccaaccaa ggagaccccg ccatcccggc cgcagaatcc agctgcgaaa gacctggcgg 240  
111 gcttcaccac ggccccgggc cactgcagac acccgctggg tgggctggat tacctcgatc 300  
113 ccgcaggctt tatgcactcc tttcagtgcg agcttggttc atgggatgat gggttacaag 360

Does Not Comply  
Corrected Diskette Needed

pr 1-4

per Sequence Rules, use "r"  
r = a or g

## RAW SEQUENCE LISTING

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DATE: 06/12/2003

TIME: 08:07:21

Input Set : A:\EP.txt

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```

115 gtgggggtttt ttccaggtcg cactacgtga aatgcactct accagagaaa gctcgaaaat 420
117 gggggttagaa tgacactacc cagactcaca gttcactcct cttcatgctc cattttcaac 480
119 cacttgccctc tt 492
122 <210> SEQ ID NO: 4
124 <211> LENGTH: 20
126 <212> TYPE: DNA
128 <213> ORGANISM: Unknown
132 <220> FEATURE:
134 <223> OTHER INFORMATION: Human and rabbit cDNA sequences encoding the prolactin
receptor
135 were used to design the degenerate primer
137 <220> FEATURE:
139 <221> NAME/KEY: misc_difference
141 <222> LOCATION: (13)..(13)
143 <223> OTHER INFORMATION: C/T use "y" y = cor +
147 <400> SEQUENCE: 4
148 tcacaagggtc aaGaaagatg 20
151 <210> SEQ ID NO: 5
153 <211> LENGTH: 20
155 <212> TYPE: DNA
157 <213> ORGANISM: Unknown
161 <220> FEATURE:
163 <223> OTHER INFORMATION: Human and rabbit cDNA sequences encoding the prolactin
receptor
164 were used to design the degenerate primer
166 <220> FEATURE:
168 <221> NAME/KEY: misc_difference
170 <222> LOCATION: (3)..(3)
172 <223> OTHER INFORMATION: G/A use "r"
176 <220> FEATURE:
178 <221> NAME/KEY: misc_difference
180 <222> LOCATION: (9)..(9)
182 <223> OTHER INFORMATION: G/A use "r"
186 <220> FEATURE:
188 <221> NAME/KEY: misc_difference
190 <222> LOCATION: (16)..(16)
192 <223> OTHER INFORMATION: G/A use "r"
196 <400> SEQUENCE: 5
197 tggagaaaaga ggcaagtgtg 20
200 <210> SEQ ID NO: 6
202 <211> LENGTH: 20
204 <212> TYPE: DNA
206 <213> ORGANISM: Porcine
210 <400> SEQUENCE: 6
211 cggccgcaga atcctgctgc 20
214 <210> SEQ ID NO: 7
216 <211> LENGTH: 24
218 <212> TYPE: DNA
220 <213> ORGANISM: Porcine
224 <400> SEQUENCE: 7
225 accccacctt gtaacccatc atcc 24

```

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Input Set : A:\EP.txt

Output Set: N:\CRF4\06122003\I900063A.raw

```

228 <210> SEQ ID NO: 8
230 <211> LENGTH: 18
232 <212> TYPE: DNA
234 <213> ORGANISM: Porcine
238 <400> SEQUENCE: 8
239 caaggtggga acatgagt 18
242 <210> SEQ ID NO: 9
244 <211> LENGTH: 20
246 <212> TYPE: DNA
248 <213> ORGANISM: Porcine
252 <400> SEQUENCE: 9
253 aatcctttta tttttggccc 20
256 <210> SEQ ID NO: 10
258 <211> LENGTH: 20
260 <212> TYPE: DNA
262 <213> ORGANISM: Porcine
266 <400> SEQUENCE: 10
267 gattattgtc tgggcagtgg 20
270 <210> SEQ ID NO: 11
272 <211> LENGTH: 20
274 <212> TYPE: DNA
276 <213> ORGANISM: Porcine
280 <400> SEQUENCE: 11
281 aatcctttta tttttggccc 20
284 <210> SEQ ID NO: 12
286 <211> LENGTH: 20
288 <212> TYPE: DNA
290 <213> ORGANISM: Porcine
294 <400> SEQUENCE: 12
295 gattattgtc tgggcagtgg 20
298 <210> SEQ ID NO: 13
300 <211> LENGTH: 23
302 <212> TYPE: DNA
304 <213> ORGANISM: Porcine
308 <400> SEQUENCE: 13
309 ctatttcaca aaaactgcgc tac 23
312 <210> SEQ ID NO: 14
314 <211> LENGTH: 566
316 <212> TYPE: DNA
318 <213> ORGANISM: Porcine
322 <220> FEATURE:
324 <221> NAME/KEY: misc_feature
326 <222> LOCATION: (36)..(36)
328 <223> OTHER INFORMATION: n = unknown at amino acid position 36
332 <400> SEQUENCE: 14
W--> 333 gattattgtc tgggcagtgg tcttctctgt ctatcnaccc cctccatt catggtctc 60
335 aggtataat ggcaaaaaa aagacaagac aaaaatgatg gaaacctaca gataattyaa 120
337 gcacctcatt ttgccattag ctgcattagc cataaaaaaa aaaaaaaa cttttctca 180
339 gtgctagaaa aaacagaat agactcattt gaaactgata ttctctctac caaaggagat 240

```

? This is a nucleotide sequence.

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Input Set : A:\EP.txt

Output Set: N:\CRF4\06122003\I900063A.raw

```

341 agcgcagttg tgaaatagta aacgtctgac aagaacagca aataatccca ctagtaattt 300
343 cagaatccgc ctctcaatt agccagaatt cactgtgatg ctggcctcta taattattat 360
345 ttgtcttcac cactgattag ttccacatca tgaaaattgc atgtcattta gtttcacrt 420
347 gcctcagaac caaccctaatt tctacctgc catatccctg tagcagctat tcgaagatca 480
349 caaggtggga acatgtgtya tttatctttt ctcttacatt atttttagagc atggtggcct 540
351 gcatccgggc caaaaataaa aggatt 566

```

354 &lt;210&gt; SEQ ID NO: 15

356 &lt;211&gt; LENGTH: 518

358 &lt;212&gt; TYPE: DNA

360 &lt;213&gt; ORGANISM: Porcine

364 &lt;220&gt; FEATURE:

366 &lt;221&gt; NAME/KEY: misc\_feature

368 &lt;222&gt; LOCATION: (49)..(49)

370 &lt;223&gt; OTHER INFORMATION: n = unknown in amino acid position 49

374 &lt;220&gt; FEATURE:

376 &lt;221&gt; NAME/KEY: misc\_feature

378 &lt;222&gt; LOCATION: (67)..(67)

380 &lt;223&gt; OTHER INFORMATION: n = unknown in amino acid position 67

384 &lt;400&gt; SEQUENCE: 15

W--> 385 gtacacacac acacacacac acacacacac acacaccacc gttaagctnt ctttctgaat 60

```

387 catgcnacc cgagggccac ccataagagga gtgtgggtgga ggggtgcttg gcacttctga 120
389 gccctgcatc cctacaccca ctacgctcaa gatgtcatcc ctgcctggc cccacccat 180
391 ctgcttctgt caccagcaga atggtccagt cattgagcgg accttcatat tgactccagt 240
393 ggcttctggc tttttctagg acagtcacct ccgggaaaac ctgagatctt caaatgtcgt 300
395 tctcccgaaa aggaaacatt cgctgctgg tggaagccgg gggcggtatg aggacttct 360
397 accaactaga cgctgactta ccacaaggaa gggttaagcat tcgcgtgtct cccaacaaac 420
399 cacacgagtg ttctctctct gtgggccaga ggaacactgc ttctgggtta gaactgcctc 480
401 gctttggagt tcccgctcatg gctcagtggt aacgaatc 518

```

404 &lt;210&gt; SEQ ID NO: 16

406 &lt;211&gt; LENGTH: 133

408 &lt;212&gt; TYPE: DNA

410 &lt;213&gt; ORGANISM: Homo sapiens

414 &lt;400&gt; SEQUENCE: 16

```

415 gacagttacc tcttgaaaaa cctgagatct ttaaagtgtg ttctcccaat aaggaaacat 60
417 tcacctgctg gtggaggcct gggacagatg gaggacttcc taccaattat tcaactgactt 120
419 accacagga agg 133

```

422 &lt;210&gt; SEQ ID NO: 17

424 &lt;211&gt; LENGTH: 53

426 &lt;212&gt; TYPE: PRT

428 &lt;213&gt; ORGANISM: Homo sapiens

432 &lt;400&gt; SEQUENCE: 17

```

434 Gly Gln Leu Pro Pro Gly Lys Pro Glu Ile Phe Lys Ser Pro Phe Cys
435 1 5 10 15
438 Arg Ser Pro Asn Lys Glu Thr Phe Thr Glu Ala Arg Pro Gly Thr Asp
439 20 25 30
442 Gly Gly Leu Pro Thr Asn Lys Pro Ala Asn Tyr Ser Leu Thr Tyr His
443 35 40 45
446 Arg Glu Gly Thr Lys
447 50

```

*This is a  
nucleotide  
sequence*

## RAW SEQUENCE LISTING

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DATE: 06/12/2003

TIME: 08:07:21

Input Set : A:\EP.txt

Output Set: N:\CRF4\06122003\I900063A.raw

450 &lt;210&gt; SEQ ID NO: 18

452 &lt;211&gt; LENGTH: 132

454 &lt;212&gt; TYPE: DNA

456 &lt;213&gt; ORGANISM: Porcine

460 &lt;400&gt; SEQUENCE: 18

461 acagtcacct ccgggaaaac ctgagatctt caaatgtcgt tctcccgaag aggaaacatt 60

463 cgctgctgg tggaagccgg gggcgatgg aggacttcct accaactaga cgctgactta 120

465 ccacaaggaa gg 132

RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/09/900,063A

DATE: 06/12/2003  
TIME: 08:07:22

Input Set : A:\EP.txt  
Output Set: N:\CRF4\06122003\I900063A.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:14; N Pos. 36  
Seq#:15; N Pos. 49,67

Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:1; Line(s) 13

**VERIFICATION SUMMARY**

PATENT APPLICATION: US/09/900,063A

DATE: 06/12/2003

TIME: 08:07:22

Input Set : A:\EP.txt

Output Set: N:\CRF4\06122003\I900063A.raw

L:333 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:0  
L:385 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:0  
M:341 Repeated in SeqNo=15



**STATISTICS SUMMARY**

PATENT APPLICATION: US/09/900,063A

DATE: 06/12/2003

TIME: 08:07:22

Input Set : A:\EP.txt

Output Set: N:\CRF4\06122003\I900063A.raw

Application Serial Number: US/09/900,063A

Alpha or Numeric or Xml: Numeric

Application Class:

Application File Date: 07-06-2001

Art Unit: 1600

Software Application: PatentIN3.1

Total Number of Sequences: 18

Total Nucleotides: 2086

Total Amino Acids: 53

Number of Errors: 0

Number of Warnings: 3

Number of Corrections: 0

**MESSAGE SUMMARY**

341 W: 3 ((46) "n" or "Xaa" used)